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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,015	01/11/2002	Isabelle Boeye	24069B	9093
22889	7590	05/12/2004	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			SORKIN, DAVID L	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,015	BOEYE, ISABELLE	
	Examiner	Art Unit	
	David L. Sorkin	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-24 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 9-22, in the response filed 24 March 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Drawings

2. The proposed drawing corrections filed 24 March 2004 is approved. The drawings must be correspondingly amended in accordance with (the current) 37 CFR 1.121(d). For example, the words "Replacement Sheet" must appear in a header of any replacement drawing sheet.

Claim Objections

3. Inconsistent with 37 CFR 1.121(c), line 3 of claim 9 has been amended by changing the word "for" to the word "to" without marking-up the change. The word should be restored to "for" to make the claim grammatical.

4. Claim 9 is objected to under 37 CFR 1.75(d)(1). As explained in MPEP 2181, particularly on page 2100-219 of the February 2003 version, and based upon *In re Wolfensperger* 133 USPQ 537, applicant may be required to explicitly state what the corresponding structure for a mean-plus-function recitation is. Applicant is hereby required to explicitly state the corresponding structure for the recitation "means ... for uniformly mixing".

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 9 and 11-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. These claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention:

In claim 9, the new recitation "a second stage comprising a hydrolyzer chamber and second tubular chamber" is not supported by the specification as originally filed. While the second stage is disclosed to include a tubular hydrolyzer chamber, recitation of "a hydrolyzer chamber and a second tubular chamber" is not consistent with the original disclosure because it implies that there are two chambers in the second stage, when in fact there is one.

In claim 9, the new limitation "means within said first chamber for uniformly mixing" is not sufficiently described in the original specification. Firstly, the function "uniformly mixing" in the first chamber is not disclosed. Instead the specification explains that downstream stages include additional mixing elements to complete the mixing. Secondly, *corresponding structure* to the function "uniformly mixing" is not adequately disclosed. While the specification states on page 5, lines 9-10, that

“conventional internal mixing elements” are installed in the device, no further description of any corresponding structure is provided.

7. Claims 9 and 11-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

8. The scope of “means...for uniformly mixing”, recited in independent claim 9 is unclear, due to the lack of description of structure corresponding to such a function. While the specification states on page 5, lines 9-10, that “conventional internal mixing elements” are installed in the device, it is unclear if the limitation is open to any conventional internal mixing element (and equivalents thereof) or if the limitation is somehow more narrow.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 9, 11, 13, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Potchen (US 2,890,868). Claim 9 requires an apparatus comprising an in-line mixer in flow communication with an applicator. Potchen ('868) discloses an apparatus comprising a mixer (reference character 10, or a plurality thereof) and an applicator (35). Claim 9 also discusses the intended use of the apparatus as well as components thereof. For example, it is stated that the apparatus is intended to be used

"for the substantially continuous preparation and application of a sized composition to glass fibers", that the mixer is "for preparing the size [composition]" and that the applicator is "for applying the size [composition] to said fibers". While Potchen ('868) does not discuss an intended operation of applying material to glass fibers and does not disclose the act of carrying out an hydrolysis reaction, it is considered that the apparatus of Potchen ('868) is capable of being used in the manner stipulated by claim 9. Applicant is advised that "the manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself" *In re Casey* 152 USPQ 235 (CCPA 1967). Also, "[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim" *Ex parte Thilbault* 164 USPQ 666, 667 (Bd. App. 1969). The in-line mixer comprises at least two serially connected stages (see col. 3, lines 20-26 which explains that plural mixer units 10 may be arranged serially), a first of said stages (a first mixer unit 10) comprising a first tubular chamber (11) having an inlet end (top end in Fig. 3) and an outlet end (bottom end in Fig. 3), means (22) within said first chamber for uniformly mixing materials introduced therein with a carrier fluid flowing therethrough, a means (14,15,16,17) connected to the inlet end of said first chamber for introducing a controlled amount of a carrier fluid into said first chamber, and at least one means (14a,15a,16a,17a) connected to said first chamber for introducing into said chamber a controlled amount of a component material to be mixed with said carrier fluid; and a second stage (a second and optionally third mixer unit 10) comprising a hydrolysis chamber (11 of the second unit 10) and second tubular chamber (11

redundantly of the second unit 10 or non-redundantly of the third unit 10) having an inlet end (top end in Fig. 3) and an outlet end (bottom end in Fig. 3), wherein said inlet end of said second chamber is in flow communication with said outlet end of said first chamber (see col. 3, lines 20-26). Note: in an alternative ground for rejection of claim 9, the first stage may be considered an upper portion of mixer 10 as shown in Fig. 3 including the uppermost mixing disc "22" while the second stage may be considered a lower or middle portion of mixer 10, including subsequent mixing discs "22". Regarding claim 11, said means for introducing a controlled amount of a component material to be mixed with said carrier fluid comprises an injector (15) mounted in said first tubular chamber for injecting materials into said chamber, and a flow regulator (16) connected to said injector for regulating the amount of said component to said injector for regulating the amount of said component material introduced through said injector. Regarding claim 13, said means for introducing a controlled amount of a component material to be mixed with said carrier fluid comprises at least one injector (15) mounted within a cylindrical ring (corresponding to section view Fig. 10) having an internal diameter substantially the same as said first chamber (see Fig. 3), said ring being affixed to said first chamber upstream of said outlet end and in flow communication therewith (see Fig. 3); and a flow regulator (16) connected to said injector for regulating the amount of said component material introduced through said injector. Note: in an alternative ground for rejection of claim 13, the first stage may be considered an upper portion of mixer 10 as shown in Fig. 3 including the uppermost mixing disc "22" (as explained with regard to an alternative ground for rejection of claim 10 above) while the second stage may be

considered a middle portion of mixer 10, including for example second and third mixing discs "22" and the third stage may be considered a still lower portion of mixer 10, for example including forth and fifth mixing discs "22". Regarding claim 18, the apparatus further comprises a third stage (see col. 3, lines 20-26, especially line 25, "two or more"), comprising a third tubular chamber (11) having an inlet end and an outlet end, wherein said inlet end is in flow communication with said outlet end of said second chamber; and means (22) within said third chamber for mixing materials flowing therethrough. Regarding claim 20, at least one injector (15) mounted within a cylindrical ring (corresponding to section view Fig. 10) having an internal diameter substantially the same as said third chamber (see Fig. 3), said ring being affixed to said third chamber and in flow communication therewith to permit introduction of a controlled amount of a component material to the fluid flowing through said third chamber; and a flow regulator (16) connected to said injector for regulating the amount of said component material introduced through said injector.

11. Claims 9, 10, 18 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al. (US 5,482,368). Claim 9 requires an apparatus comprising an in-line mixer in flow communication with an applicator. Nakamura ('368) discloses an apparatus comprising a mixer (reference character 4) and an applicator (12). Claim 9 also discusses the intended use of the apparatus as well as components thereof. For example, it is stated that the apparatus is intended to be used "for the substantially continuous preparation and application of a sized composition to glass fibers", that the mixer is "for preparing the size [composition]" and that the applicator is "for applying the

size [composition] to said fibers". While Nakamura ('368) does not discuss an intended operation of applying material to glass fibers and does not disclose the act of carrying out an hydrolysis reaction, it is considered that the apparatus of Nakamura ('368) is capable of being used in the manner stipulated by claim 9. Applicant is advised that "the manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself" *In re Casey*, supra. Also, "[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim" *Ex parte Thilbault*, supra. The in-line mixer comprises at least two serially connected stages (4b,4a,4b,4a; see Fig. 1), a first of said stages (the first "4b") comprising a first tubular chamber (the portion of "4" corresponding to the first "4b" in Fig. 1) having an inlet end (at left in Fig. 1) and an outlet end (at right in Fig. 1), means (4b) within said first chamber for mixing materials introduced therein with a carrier fluid flowing therethrough, a means (2) connected to the inlet end of said first chamber for introducing a controlled amount of a carrier fluid into said first chamber, and at least one means (1) connected to said first chamber for introducing into said chamber a controlled amount of a component material to be mixed with said carrier fluid; and a second stage (the first "4a") comprising a second tubular chamber (the portion of "4" corresponding to the first "4a" in Fig. 1) having an inlet end (left end in Fig. 1) and an outlet end (right end in Fig. 1), wherein said inlet end of said second chamber is in flow communication with said outlet end of said first chamber (see Fig. 1). Regarding claim 18, the apparatus further comprises a third stage (the second "4b" in Fig. 1), comprising a third tubular chamber (the portion of

"4" corresponding to the second "4b" in Fig. 1) having an inlet end and an outlet end, wherein said inlet end is in flow communication with said outlet end of said second chamber; and means (4b) within said third chamber for mixing materials flowing therethrough. Regarding claim 22, a means (11,13) for monitoring the concentration of a component material is between said mixer and applicator and automatically adjusting the volumes of the carrier fluid and component materials introduced into said mixer to maintain said concentration at a substantially constant value (see col. 3. lines 40-54).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potchen (2,890,868) as applied to claim 9 above. By "as applied to claim 9 above" in this instance only the main ground for rejection of claim 9 is being referred to, not what is indicated as the "alternative ground for rejection" above. Regarding claim 16, Potchen ('868) does not explicitly state that said second tubular chamber is larger in diameter and in length than said first tubular chamber. However, it is considered that col. 5 lines 21-26 and col. 3 lines 20-26 would have suggested such a larger second tubular chamber for the following reasons. Col. 5, lines 21-24 states "It may be, in cases where a number of substances are brought together, that the proportional size of the mixer will have to be increased to provide sufficient flow". Col. 3, lines 20-26

explains that after two substances are mixing in a first mixer, an additional substance may be added to the flow and the three substances mixed in a second mixer. In such as situation, col. 5 lines 21-26 would have suggested to one of ordinary skill in the art to have made the second mixer, including the tubular chamber thereof, proportionally larger to compensate for the additional flow. Regarding claim 17, the apparatus comprises at least one means (14,15,16,17) for introducing a controlled amount of a component in to said second chamber.

14. Claims 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potchen (2,890,868) in view of Cadeo et al. (US 4,964,732). Claim 12 depends from claim 11, which is anticipated by Potchen ('868) as discussed above. Claim 12 further requires "an adjustable output pump and flow meter". Although Potchen ('868) discloses a pump (17) and a valve (16) to adjust the output of the pump, Potchen ('868) fails to disclose "an adjustable output pump and flow meter". Cadeo ('732) teaches a flow regulator comprising an adjustable output pump (6) and a flowmeter (10) (see col. 3, lines 19-30). It is considered that it would have been obvious to one of ordinary skill in the art to have substituted that adjustable output pump (6) and a flowmeter (10) of Cadeo ('732) for the pump and valve of Potchen ('868) because Potchen ('868) explicitly states regarding the pump and valve "[w]hile this is one particular method of proportioning the relative volumes of the two substances, others may be employed" (col. 3, lines 17-19). Furthermore, Cadeo ('732) explains that the adjustable output pump (6) and flowmeter (10) are particularly beneficial in mixing high viscosity fluids (see col. 3, lines 17-30) and Potchen ('868) is also concerned with mixing high viscosity fluids (see

col. 1, lines 29-35; col. 1 line 69 to col. 2 line 1). Claim 14 depends from claim 11, which is anticipated by Potchen ('868) as discussed above. Claim 14 further requires "an adjustable output pump and flow meter". Although Potchen ('868) discloses a pump (17) and a valve (16) to adjust the output of the pump, Potchen ('868) fails to disclose "an adjustable output pump and flow meter". Cadeo ('732) teaches a flow regulator comprising an adjustable output pump (6) and a flowmeter (10) (see col. 3, lines 19-30). It is considered that it would have been obvious to one of ordinary skill in the art to have substituted that adjustable output pump (6) and a flowmeter (10) of Cadeo ('732) for the pump and valve of Potchen ('868) because Potchen ('868) explicitly states regarding the pump and valve "[w]hile this is one particular method of proportioning the relative volumes of the two substances, others may be employed" (col. 3, lines 17-19). Furthermore, Cadeo ('732) explains that the adjustable output pump (6) and flowmeter (10) are particularly beneficial in mixing high viscosity fluids (see col. 3, lines 17-30) and Potchen ('868) is also concerned with mixing high viscosity fluids (see col. 1, lines 29-35; col. 1 line 69 to col. 2 line 1). Claim 15, which depends from claim 14, further requires a plurality of injectors mounted within said cylindrical ring, each connected to an adjustable output pump. Potchen ('868) further discloses a plurality of injectors (15, 15a) mounted in said cylindrical ring, each injector connected to a pump (17, 17a). In accordance with the substitution discussed above with regard to parent claim 14, it is considered that it would have been obvious to one of ordinary skill in the art to have substituted each pump and valve set of Potchen ('868) with an adjustable output pump and flowmeter according to the teachings of Cadeo ('732), because Potchen ('868)

explicitly states regarding the pump and valve "[w]hile this is one particular method of proportioning the relative volumes of the two substances, others may be employed" (col. 3, lines 17-19). Furthermore, Cadeo ('732) explains that the adjustable output pumps (6,7) and flowmeters (10) are particularly beneficial in mixing high viscosity fluids (see col. 3, lines 17-30) and Potchen ('868) is also concerned with mixing high viscosity fluids (see col. 1, lines 29-35; col. 1 line 69 to col. 2 line 1).

15. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Potchen (US 2,890,868) in view of Dearing, Sr. et al. (US 5,624,182). The apparatus of Potchen ('868) was discussed above with regard to claim 10. Claim 21, which depends from claim 10, further requires a means for monitoring application rate and adjusting volumes of carrier fluid and component materials introduced into the mixer to maintain a substantially constant supply at a reservoir. Potchen ('868) does not disclose such means. Dearing ('182) teaches means (65,87,100) for monitoring application rate and automatically adjusting the volumes of carrier fluid and component materials introduced into said mixer to maintain a substantially constant supply of material at an applicator reservoir (see col. 8, lines 33-40; col. 19, lines 1-55). It is considered that it would have been obvious to one of ordinary skill in the art to have provided the apparatus of Potchen ('868) with the means for monitoring and adjusting of Dearing ('182) because Potchen ('868) explicitly states "[w]hile this is one particular method of proportioning the relative volumes of the two substances, others may be employed" (col. 3, lines 17-19) and to achieve the advantage taught by Dearing ('182) of compensating for slight inaccuracies in other components of an apparatus (see col. 19, lines 1-55).

16. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US 5,482,368) in view of Dearing, Sr. et al. (US 5,624,182). The apparatus of Nakamura ('368) was discussed above with regard to claim 10. Claim 21, which depends from claim 10, further requires a means for monitoring application rate and adjusting volumes of carrier fluid and component materials introduced into the mixer to maintain a substantially constant supply at a reservoir. Nakamura ('368) does not disclose such means. Dearing ('182) teaches means (65,87,100) for monitoring application rate and automatically adjusting the volumes of carrier fluid and component materials introduced into said mixer to maintain a substantially constant supply of material at an applicator reservoir (see col. 8, lines 33-40; col. 19, lines 1-55). It is considered that it would have been obvious to one of ordinary skill in the art to have provided the apparatus of Nakamura ('368) with the means for monitoring and adjusting of Dearing ('182) to achieve the advantage taught by Dearing ('182) of compensating for slight inaccuracies in other components of an apparatus (see col. 19, lines 1-55).

17. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Potchen (US 2,890,868) in view of Nakamura et al. (US 5,482,368). The apparatus of Potchen ('868) was discussed above with regard to claim 10. Claim 21, which depends from claim 10, further requires means for monitoring concentration of a component between said mixer and applicator and automatically adjusting the volumes of the carrier fluid and component materials introduced into said mixer to maintain said concentration at a substantially constant value. Potchen ('868) does not disclose such means. Nakamura ('368) teaches a means (11,13) for monitoring the concentration of a component

material is between a mixer and an applicator and automatically adjusting the volumes of the carrier fluid and component materials introduced into said mixer to maintain said concentration at a substantially constant value (see col. 3. lines 40-54). It is considered that it would have been obvious to one of ordinary skill in the art to have provided the apparatus of Potchen ('868) with the means for monitoring and adjusting of Nakamura ('368) because Potchen ('868) explicitly states "[w]hile this is one particular method of proportioning the relative volumes of the two substances, others may be employed" (col. 3, lines 17-19) and to achieve the advantage taught by Nakamura ('368) of providing a more consistent mixer product (see col. 1 lines 51-66 to col. 2 line).

Response to Arguments

18. Applicant's arguments regarding section 102 rejections initially focus upon the new word "uniformly", in the limitation "means in the first chamber for uniformly mixing". Focusing on the prior art issues rather than the section 112 issues, applicant's arguments are unconvincing for several reasons. Firstly, applicant argues that the reference does not disclose a step of uniformly mixing in "cavity 13". However, this argument ignores the grounds for reject, as "cavity 13" is merely an inlet for the first stage. Applicant's arguments should address the actual grounds for rejection. Secondly, the relevant prior art issue is not whether a given reference discloses a step of uniformly mixing, because the elected claims are apparatus claims, not method claims. The relevant issue is whether the prior art mixing structure is or is not the same as or an equivalent of the corresponding structure (disclosed in the instant specification) of the function "uniformly mixing". The only disclosed mixing structure in the instant

specification is "conventional internal mixing elements", which is exactly what is disclosed by the reference. Thirdly, the same structure may correspond to function uniformly mixing and to the function non-uniformly mixing. For example a spoon may be used for mixing uniformly and a spoon may also be used for mixing non-uniformly and a spoon may also be used for eating ice cream. In this sense, means for mixing uniformly, means for mixing non-uniformly and means for eating ice cream may all be overlapping in scope. The critical question is therefor: what is the corresponding structure, if any, disclosed in the instant specification for "uniformly mixing" and do the prior art references disclose such structure, or an equivalent thereof.

19. Regarding Nakamura ('368) applicant alleges that the reference does not disclose steps such as carrying out as hydrolysis reaction and applying "size", but does not discuss any issues germane to patentability of apparatus claims. "[T]he manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself" *In re Casey* 152 USPQ 235 (CCPA 1967).

Conclusion

20. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Sorkin

David L. Sorkin
Examiner
Art Unit 1723